Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Greif Riverville LLC.
Facility Name:	Greif Riverville LLC.
Facility Location:	861 Fibre Plant Road, Riverville, Virginia
DEQ Registration Number:	30549
Permit Number	SCRO-30549

This permit includes the following programs:

Federally Enforceable Requirements - Clean Air Act (Sections I through IX)

November 19, 2006
Effective Date

November 18, 2011
Expiration Date

_____

T. L. Henderson
Regional Director, South Central Regional Office

November 7, 2006
Signature Date

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I. Facility Information

Permittee
Greif Riverville LLC
P.O. Box 339
Amherst, VA 24521

Responsible Official
Michael A. Giles
Vice President, Manufacturing, Containboard Mill Operations

Facility
Greif Riverville LLC
861 Fibre Plant Road, Riverville, VA
Amherst County

Contact Person
Mr. John Petchul
Staff Environmental Engineer
(434) 933-4117

County-Plant Identification Number: 51-009-00022

Facility Description: NAICS 322130 – Greif Riverville LLC is a manufacturer of semichemical corrugated medium and recycled liner board covered by North American Industry Classification Code (NAICS) 322130. The facility has one semichemical paper machine and one recycled paperboard machine, and associated process equipment. Two natural gas/residual oil boilers, one combination fuel boiler, one chemical recovery boiler, and one natural gas/distillate oil spare boiler provide the steam requirements to the facility.

II. Emission Units

Equipment to be operated consists of:

A. Significant Emissions Units (See Note 2 for abbreviations)

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity (Note 1)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
BLR01	BLRSV01	B&W Package Boiler –North, Fired By Natural Gas and Residual Oil, 1975	224.6 MMBtu/hr	Low NOx Burner, 2000	----	Nitrogen Oxides	4/30/98, as amended 11/23/04
BLR02	BLRSV01	B&W Package Boiler – South, Fired By Natural Gas and Residual Oil, 1975	224.6 MMBtu/hr	----	----	----	4/3/73
BLR03	BLRSV03	B&W Package Boiler – Spare, Fired by Natural Gas and Distillate Oil, 1965	100 MMBtu/hr	----	----	----	10/13/00
BLR05	BLRSV05	Foster Wheeler Combination Boiler, Fired by Natural Gas, Woodwaste, Tire Derived Fuel (TDF), and Old Corrugated Container Reject Material (OCCR), 2000	244 MMBtu/hr	Research Cottrell Electrostatic Precipitator, 2000	BLRCD05	PM	4/30/98, as amended 11/23/04
Woodyard							
WDY01	WDYSV01 (fugitive)	Various Woodyard Equipment and Vehicular Traffic	----	----	----	----	4/3/73
Unbleached Pulp Mill							
UPM01	BLRSV05	Bauer M&D Digester System, 1975	26 ODTP/hr	NCG Control System in accordance with MACT I	BLR05 (primary) BLR01 or BLR02 (backup)	Total HAP	4/3/73

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity (Note 1)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
UPM03	UPMSV03	IMPCO #1 Brownstock Washer, 1975	26 ODTP/hr	----	----	----	4/3/73
UPM04	UPMSV04	IMPCO #2 Brownstock Washer, 1975	26 ODTP/hr	----	----	----	4/3/73
UPM05	UPMSV05	IMPCO #3 Brownstock Washer, 1975	26 ODTP/hr	----	----	----	4/3/73
UPM07	BLRSV05	RECO Combined Condensate Tank / Washer Showers Supply Tanks, 1975 1993	2,830 gal 1,550 gal	NCG Control System in accordance with MACT I	BLR05 (primary) BLR01 or BLR02 (backup)	Total HAP	----
Chemical Recovery							
CR01	CRSV01	RECO Weak Liquor Storage Tanks (2), 1975	988,887 gal	----	----	----	4/3/73
CR03	CRSV03	RECO Heavy Black Liquor Storage Tank, 1975	120,132 gal	----	----	----	4/3/73
CR04	BLRSV05	Nash Evaporator Vacuum Pump, 1975	26 ODTP/hr	NCG Control System in accordance with MACT I	BLR05 (primary) BLR01 or BLR02 (backup)	Total HAP	4/3/73
CR04A	BLRSV05	Ultra High Solids Crystallizer, 2003	9.375 TBLS/hr	NCG Control System in accordance with MACT I	BLR05 (primary) BLR01 or BLR02 (backup)	Total HAP	5/30/03
CR05	CRSV05	B&W Recovery Boiler, 1975	11.7 TBLS/hr, 625 gal #6 oil/hr	B&W Dry Bottom 3 Field Electrostatic Precipitator	CRCD05	PM	4/3/73
CR06	CRSV06	RECO Smelt Dissolving Tank, 1975	11.7 TBLS/hr	----	----	----	4/3/73

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity (Note 1)	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
#1 Paper Machine							
PM01	PMSV01 (fugitive)	RECO #1 Paper Machine HD Storage Tank, 1975	615,628 gal	----	----	----	4/3/73
PM02	PMSV02 (fugitive)	Beloit #1 Paper Machine Wet End, 1975	40 ADTFP/hr	----	----	----	4/3/73
PM03	PMSV03 (fugitive)	Beloit #1 Paper Machine Dry End, 1975	40 ADTFP/hr	----	----	----	4/3/73
#2 Paper Machine							
PM04	PMSV04 (fugitive)	Beloit #2 Paper Machine, including starch silo, 1993	45 ADTFP/hr	----	----	----	5/12/92, as amended 10/5/94 and 2/22/95
Wastewater Treatment Plant							
WWT01	WWTSV01 (fugitive)	Wastewater Treatment Plant, 1975	7.0 MGD	----	----	----	4/3/73

Notes:

1. The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.
2. Abbreviations: ADTFP = Air Dried Ton of Finished Paper; ODTP = Oven Dry Tons of Pulp; TBLS = Tons of Black Liquor Solids

III. Fuel Burning Equipment Requirements

A. B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)

1. Limitations for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)

a. Nitrogen oxide emissions from the B&W Package Boiler – North (Ref. No. BLR01) shall be controlled by low NO_x burners and flue gas recirculation.
(9 VAC 5-80-110, and Condition 8 of 4/30/98 Permit as amended 11/23/04)

b. The approved fuels for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) are natural gas and residual oil. Residual oil is defined as fuel oil that meets the specifications for fuel oil numbers 4, 5, or 6 under the American Society for Testing and Materials, "Standard Specification for Fuel Oils". A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110, and Condition 9 of 4/30/98 Permit as amended 11/23/04)

c. The maximum sulfur content of the residual oil to be burned in either the B&W Package Boiler – North (Ref. No. BLR01) or the B&W Package Boiler – South (Ref. No. BLR02) shall not exceed 2.5% percent by weight per shipment.
(9 VAC 5-80-110 E)

d. The B&W Package Boiler – North (Ref. No. BLR01) shall consume no more than 4,000,000 gallons per year of residual oil, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110, and Condition 10 of 4/30/98 Permit as amended 11/23/04)

e. Emissions from the operation of each B&W Package Boiler (i.e., the North boiler (Ref. No. BLR01) and the South boiler (Ref. No. BLR02)) shall not exceed the limits specified below:

Particulate Matter	0.22 lbs/MMBtu
Sulfur Dioxide	592.9 lbs/hr

(9 VAC 5-80-110, 9 VAC 5-40-900, and 9 VAC 5-40-930)

f. Visible emissions from the combined stack for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(9 VAC 5-80-110 and 9 VAC 5-50-80)

g. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) and their respective air pollution control equipment which affect such emissions:

(1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance to air pollution control equipment.

(2) Maintain an inventory of spare parts.

(3) Have available written operating procedures for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) and their respective air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

(4) Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110, 9 VAC 5-50-20 E, Conditions 20 and 21 of 4/30/98 Permit as amended 11/23/04)

2. **Monitoring for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)**

a. At least one time per calendar week, an observation for the presence of visible emissions from the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) combined stack shall be made. If visible emissions are observed the permittee shall:

(1) take timely corrective action such that the boiler(s) resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the stack do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six

minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler(s) resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain a log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If neither of the boilers have been operated during the week, it shall be noted in the log that the boilers were not operated and that a visual observation was not required.
(9 VAC 5-80-110 E.)

3. **Recordkeeping for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)**

   a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

      (1) The annual consumption of residual oil in the B&W Package Boiler – North (Ref. No. BLR01), calculated monthly as the sum of each consecutive 12-month period.

      (2) The percent sulfur of the residual oil received, per shipment.

      (3) Records of malfunctions of equipment which may cause a violation of any part of this permit.

      (4) Operating procedures, maintenance schedules, training, and service records for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02).

      (5) Visual emission log for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) combined stack.

      (6) B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02) operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

   These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
   (9 VAC 5-80-110, and Condition 23 of 4/30/98 Permit as amended 11/23/04)

4. **Testing for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)**

   The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
   (9 VAC 5-80-110, and Condition 19 of 4/30/98 Permit as amended 11/23/04)

5. **Reporting for the B&W Package Boiler – North (Ref. No. BLR01) and the B&W Package Boiler – South (Ref. No. BLR02)**

   The permittee shall submit written reports in accordance with General Condition XII.C.
   (9 VAC 5-80-110 F)

B. B&W Package Boiler – Spare (Ref. No. BLR03)

1. **Limitations for the B&W Package Boiler – Spare (Ref. No. BLR03)**

   a. The approved fuels for the B&W Package Boiler – Spare (Ref. No. BLR03) are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials "Standard Specification for Fuel Oils." A change in the fuels may require a permit to modify and operate.
   (9 VAC 5-80-110, and Condition 4 of 10/13/00 Permit)

   b. The maximum sulfur content of the distillate oil to be burned in the B&W Package Boiler – Spare (Ref. No. BLR03) shall not exceed 0.5% percent by weight per shipment.
   (9 VAC 5-80-110, and Condition 6 of 10/13/00 Permit)

   c. The consumption of each fuel in the B&W Package Boiler – Spare (Ref. No. BLR03) must be such that each of the following equations are satisfied monthly for each consecutive 12-month period:

(1)

$$\frac{(EF_{\#2-NOx} \times A \div 1000\ gal) + (EF_{NG-NOx} \times B \div 10^{6}\ cf)}{2000\ lb/ton} \leq EL_{NOx}$$

where

$EF_{\#2\text{-}NOx}$ = Emission factor for #2 distillate oil, in units of pound of nitrogen oxides per 1000 gallons of #2 distillate oil burned = 20

A = Annual consumption of #2 distillate oil, in units of gallons per year, calculated monthly as the sum of each consecutive 12-month period

$EF_{NG\text{-}NOx}$ = Emission factor for natural gas, in units of pound of nitrogen oxides per million cubic feet of natural gas burned = 140

B = Annual consumption of natural gas, in units of cubic feet per year, calculated monthly as the sum of each consecutive 12-month period

EL_{NOx} = Annual emission limit for nitrogen oxides, given in Condition III.B.1.d of this permit, in units of tons per year = 39.4

(2)

$$\frac{(EF_{\#2-SOx} \times A \div 1000\ gal) + (EF_{NG-SOx} \times B \div 10^{6}\ cf)}{2000\ lb/ton} \leq EL_{SOx}$$

where

$EF_{\#2\text{-}SOx}$ = Emission factor for #2 distillate oil, in units of pound of sulfur dioxide per 1000 gallons of #2 distillate oil burned = 71

A = Annual consumption of #2 distillate oil, in units of gallons per year, calculated monthly as the sum of each consecutive 12-month period

$EF_{NG\text{-}SOx}$ = Emission factor for natural gas, in units of pound of sulfur dioxide per million cubic feet of natural gas burned = 0.6

B = Annual consumption of natural gas, in units of cubic feet per year, calculated monthly as the sum of each consecutive 12-month period

EL_{SOx} = Annual emission limit for sulfur dioxide, given in Condition III.B.1.d of this permit, in units of tons per year = 39.4

The above equations must be satisfied monthly for each consecutive 12-month period. In no event shall actual emission rates of any pollutant from burning any fuel exceed those rates represented by the emission factors, given above, for each pollutant and fuel.
(9 VAC 5-80-110, and Condition 5 of 10/13/00 Permit)

d. Emissions from the operation of the B&W Package Boiler – Spare (Ref. No. BLR03) shall not exceed the limits specified below:

Particulate Matter	1.41 lbs/hr	----------
PM-10	0.74 lbs/hr	----------
Sulfur Dioxide	49.98 lbs/hr	39.4 tons/yr
Nitrogen Oxides (as NO_2)	14.08 lbs/hr	39.4 tons/yr
Carbon Monoxide	8.16 lbs/hr	----------
Volatile Organic Compounds	0.53 lbs/hr	----------

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with the annual emission limits may be determined as stated in Condition III.B.1.c and III.B.3.a.
(9 VAC 5-80-110, and Condition 8 of 10/13/00 Permit)

e. Visible Emissions from the B&W Package Boiler – Spare stack (Ref. No. BLR03) shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A).
(9 VAC 5-80-110, and Condition 9 of 10/13/00 Permit)

f. The B&W Package Boiler – Spare (Ref. No. BLR03) emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.
(9 VAC 5-80-110)

2. **Monitoring for the B&W Package Boiler – Spare (Ref. No. BLR03)**

a. The B&W Package Boiler – Spare (Ref. No. BLR03) shall be equipped with a device to continuously measure and record the hourly consumption of each fuel. The monitoring device shall be installed, maintained, calibrated and operated in

accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. The monitoring device shall be provided with adequate access for inspection and shall be in operation when the B&W Package Boiler – Spare (Ref. No. BLR03) is operating.
(9 VAC 5-80-110, and Condition 3 of 10/13/00 Permit)

b. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:

(1) The name of the fuel supplier;

(2) The date on which the distillate oil was received;

(3) The quantity (in gallons) of distillate oil delivered in the shipment; and

(4) A statement that the distillate oil complies with the American Society for Testing and Materials specifications for numbers 1 or 2 fuel oil.

(9 VAC 5-80-110, and Condition 7 of 10/13/00 Permit)

c. At least one time per calendar week, an observation for the presence of visible emissions from the B&W Package Boiler – Spare stack (Ref. No. BLR03) shall be made. If visible emissions are observed the permittee shall:

(1) take timely corrective action such that the boiler resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the boiler stack do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain a boiler log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the boiler has not been operated during the week, it shall be noted in the boiler log that the boiler was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E)

3. **Recordkeeping for the B&W Package Boiler – Spare (Ref. No. BLR03)**

   a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

      (1) The amount of each fuel burned in the B&W Package Boiler – Spare (Ref. No. BLR03), per year, calculated monthly as the sum of each consecutive 12-month period.

      (2) The results of the calculations for nitrogen oxide and sulfur dioxide emissions from the boiler using the equations shown in Condition III.B.1.c, to demonstrate compliance with the annual emission limits stated in Condition III.B.1.d, calculated monthly as the sum of each consecutive 12-month period.

      (3) All fuel supplier certifications.

      (4) Visual emission log for the B&W Package Boiler – Spare (Ref. No. BLR03).

      (5) Records of malfunctions of equipment which may cause a violation of any part of this permit.

      (6) Operating procedures, maintenance schedules, training, and service records for the B&W Package Boiler – Spare (Ref. No. BLR03).

      (7) B&W Package Boiler – Spare (Ref. No. BLR03) operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

      These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
      (9 VAC 5-80-110, and Condition 10 of 10/13/00 Permit)

4. **Testing for the B&W Package Boiler – Spare (Ref. No. BLR03)**

   a. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
      (9 VAC 5-80-110, 9 VAC 5-50-30, and Condition 11 of 10/13/00 Permit)

   b. If the results of the nitrogen oxide emission calculations required in Condition III.B.3.a(2) exceeds 50% of the annual emission limit in Condition III.B.1.d, then a performance test for nitrogen oxides from the B&W Package Boiler – Spare (Ref. No. BLR03) shall be required within 120 days of the determination of this exceedance to determine compliance with the emission limits contained in Condition III.B.1.d. If required, this test shall be performed once each five year permit term.

If the results of the sulfur dioxide emission calculations required in Condition III.B.3.a(2) exceeds 50% of the annual emission limit in Condition III.B.1.d, then a performance test for sulfur dioxide from the B&W Package Boiler – Spare (Ref. No. BLR03) shall be required within 120 days of the determination of this exceedance to determine compliance with the emission limits contained in Condition III.B.1.d. If required, this test shall be performed once each five year permit term.

Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-80-110 E)

5. **Reporting for the B&W Package Boiler – Spare (Ref. No. BLR03)**

The permittee shall submit written reports in accordance with General Condition XII.C.
(9 VAC 5-80-110 F)

C. Foster Wheeler Combination Boiler (Ref. No. BLR05)

1. Limitations for the Foster Wheeler Combination Boiler (Ref. No. BLR05)

a. Particulate matter emissions from the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall be controlled by an Electrostatic Precipitator (ESP). The ESP shall be equipped with a device for the continuous measurement of primary and secondary current and voltage (by field) across the ESP. The device shall be installed in an accessible location and shall be maintained by the permittee such that it is in proper working order at all times. The ESP shall be provided with adequate access for inspection.
(9 VAC 5-80-110, and Condition 3 of 4/30/98 Permit as amended 11/23/04)

b. Nitrogen oxide emissions from the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall be controlled by low NOx burners for natural gas.
(9 VAC 5-80-110, and Condition 4 of 4/30/98 Permit as amended 11/23/04)

c. The approved fuels for the Foster Wheeler Combination Boiler (Ref. No. BLR05) are natural gas, woodwaste, Tire Derived Fuel (TDF), and Old Corrugated Container Reject material (OCCR). "Woodwaste" is defined as wood feed stock, bark, and other wood wastes capable of being hogged. This definition does not include wood contaminated with paints, plastics, finishing material or chemical treatments. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110, and Condition 5 of 4/30/98 Permit as amended 11/23/04)

d. The Foster Wheeler Combination Boiler (Ref. No. BLR05) fuel feed stream shall contain 30 percent or less by weight Municipal-type Solid Waste (MSW) as measured on a calendar quarter basis.
(9 VAC 5-80-110, and Condition 6 of 4/30/98 Permit as amended 11/23/04)

e. The Foster Wheeler Combination Boiler (Ref. No. BLR05) shall consume no more than the following amounts of each approved fuel:

natural gas	178.1 X 10^6 cubic feet per year;
woodwaste	195,525 tons per year;
TDF	2.4 tons per hour and 747 tons per year; and
OCCR	4.8 tons per hour, and 21,000 tons per year.

Each annual limit shall be calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110, and Condition 7 of 4/30/98 Permit as amended 11/23/04)

f. Emissions from the operation of the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall not exceed the limits specified below:

Particulate Matter	0.1 lbs/MMBtu	54.9 tons/yr	(40 CFR 60.43b)
PM-10	7.47 lbs/hr	25.0 tons/yr	
Sulfur Dioxide	103.15 lbs/hr	38.8 tons/yr	
Nitrogen Oxides (as NO_2)	73.20 lbs/hr	313.3 tons/yr	
Carbon Monoxide	130.07 lbs/hr	494.7 tons/yr	
Volatile Organic Compounds	26.27 lbs/hr	95.6 tons/yr	
Formaldehyde	0.17 lbs/hr	0.7 tons/yr	
Cobalt	0.01 lbs/hr	--------	
HCl	10.25 lbs/hr	15.4 tons/yr	

(9 VAC 5-80-110 and Condition 12 of 4/30/98 Permit as amended 11/23/04)

g. Visible emissions from the ESP stack on the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall not exceed 10 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 27 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during start-up, shutdown, or malfunction.
(9 VAC 5-80-110, 9 VAC 5-50-410, 40 CFR 60.43b, and Condition 13 of 4/30/98 Permit as amended 11/23/04)

h. The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions, with respect to the Foster Wheeler Combination Boiler (Ref. No. BLR05) and its respective air pollution control equipment which affect such emissions:

(1) Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance to air pollution control equipment.

(2) Maintain an inventory of spare parts.

(3) Have available written operating procedures for the Foster Wheeler Combination Boiler (Ref. No. BLR05) and its respective air pollution control equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.

(4) Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.
(9 VAC 5-80-110, 9 VAC 5-50-20 E, Conditions 20 and 21 of 4/30/98 Permit as amended 11/23/04)

i. Except where this permit is more restrictive than the applicable requirement, the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall be operated in compliance with the requirements of 40 CFR 60, Subpart Db.
(9 VAC 5-80-110, 9 VAC 5-50-410, and Condition 11 of 4/30/98 Permit as amended 11/23/04)

2. **Monitoring for the Foster Wheeler Combination Boiler (Ref. No. BLR05)**

a. A continuous emissions monitoring system shall be installed to measure and record opacity from the ESP stack on the Foster Wheeler Combination Boiler (Ref. No. BLR05). The monitoring system shall conform to the design specifications stipulated in 40 CFR 60, Appendix B, Performance Specification 1. The monitoring systems shall be installed, maintained, evaluated, calibrated and operated in accordance with 40 CFR 60.13, 40 CFR 60 Subpart Db, and 40 CFR 60, Appendix B. During all periods of boiler operation, the monitoring system shall be in continuous operation except for system breakdowns, repairs, calibration checks, and zero and span adjustments.
(9 VAC 5-80-110, 40 CFR 60.48b, and Condition 17 of 4/30/98 Permit as amended 11/23/04)

b. The permittee shall conduct opacity monitoring system audits, on a regularly scheduled basis, to demonstrate compliance with the calibration error

specification (40 CFR 60, Appendix B, Performance Specification 1). In no case shall the length of time between audits exceed twelve months. A 30-day notification prior to each scheduled audit shall be submitted to the South Central Regional Office.
(9 VAC 5-80-110, and Condition 17 of 4/30/98 Permit as amended 11/23/04)

c. The continuous monitoring data generated by the opacity monitor may, at the discretion of the Board, be used as evidence of violation of the emission standards. These data shall be kept on file for the most recent five-(5) years and made available to the Department upon request.
(9 VAC 5-80-110)

d. See section VIII.B of this permit, for additional monitoring requirements for the Foster Wheeler Combination Boiler (Ref. No. BLR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

3. **Recordkeeping for the Foster Wheeler Combination Boiler (Ref. No. BLR05)**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

(1) The daily and annual consumption for each approved fuel in the Foster Wheeler Combination Boiler (Ref. No. BLR05). Each annual consumption rate shall be calculated monthly as the sum of each consecutive 12-month period.
(40 CFR 60.49b)

(2) The weight percent of MSW in the Foster Wheeler Combination Boiler (Ref. No. BLR05) fuel feed stream on a calendar quarter basis.

(3) Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Foster Wheeler Combination Boiler (Ref. No. BLR05); any malfunction of the air pollution control equipment; and any periods during which a continuous monitoring system or monitoring device is inoperative.

(4) All continuous monitoring data.

(5) Operating procedures, maintenance schedules, training, and service records for the Foster Wheeler Combination Boiler (Ref. No. BLR05).

(6) Foster Wheeler Combination Boiler (Ref. No. BLR05) operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
(9 VAC 5-80-110, and Condition 23 of 4/30/98 Permit as amended 11/23/04)

b. See section VIII.D of this permit, for additional recordkeeping requirements for the Foster Wheeler Combination Boiler (Ref. No. BLR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

4. **Testing for the Foster Wheeler Combination Boiler (Ref. No. BLR05)**

a. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-80-110, and Condition 19 of 4/30/98 Permit as amended 11/23/04)

b. Once each permit term, at a frequency not to exceed five years, performance tests shall be performed for particulate matter and PM-10 from the Foster Wheeler Combination Boiler (Ref. No. BLR05), to determine compliance with the emission limits contained in Condition III.C.1.f. These periodic performance tests shall be performed not later than six months prior to the expiration date of this permit. Tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30, and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, South Central Regional Office. The permittee shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the South Central Regional Office within 60 days after test completion and shall conform to the test report format enclosed with this permit.
(9 VAC 5-50-30, 9 VAC 5-50-410, and 9 VAC 5-80-110 E).

c. See section VIII.C of this permit, for additional testing requirements for the Foster Wheeler Combination Boiler (Ref. No. BLR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

5. **Reporting for the Foster Wheeler Combination Boiler (Ref. No. BLR05)**

a. The permittee shall submit a report of monitored excess emissions and monitor performance semiannually. The reports are to be submitted, postmarked no later than 30 calendar days after the end of each semiannual period, to the South Central Regional Office. The details and format of the report are to be arranged with the South Central Regional Office prior to the submission of the first report.
(9 VAC 5-80-110, and Condition 17 of 4/30/98 Permit as amended 11/23/04)

b. The permittee shall submit written reports in accordance with General Condition XII.C.
(9 VAC 5-80-110 F)

c. See section VIII.E of this permit, for additional reporting requirements for the Foster Wheeler Combination Boiler (Ref. No. BLR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

IV. Process Equipment Requirements

A. Woodyard Equipment Requirements (Ref. No. WDY01)

For the following listed applicable requirement types, there are no unit specific requirements for the Woodyard Equipment (Ref. No. WDY01): **Testing**, **Monitoring, Reporting**, or **Recordkeeping.**

1. Limitations for the Woodyard Equipment

During the construction, modification, or operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

a. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

b. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

c. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

d. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

e. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

B. Unbleached Pulp Mill Equipment Requirements

The Unbleached Pulp Mill equipment includes, but is not limited to, the Digester System (Ref. No. UPM01), #1 Brownstock Washer (Ref. No. UPM03), #2 Brownstock Washer (Ref. No. UPM04), #3 Brownstock Washer (Ref. No. UPM05), and Combined Condensate Tank (Ref. No. UPM07)

1. Limitations for the Unbleached Pulp Mill Equipment

a. The permittee shall control the total HAP emissions from the Low Volume, High Concentration system. The Low Volume, High Concentration (LVHC) system

means the collection of equipment including the digester and evaporator systems, and any other equipment serving the same function as those previously listed. For the purposes of this permit, the LVHC system includes, but is not limited to, the M&D Digestor system (UPM01), the Combined Condensate Tank (WPM07), the Evaporator Vacuum Pump (CR04) and the Ultra High Solid Crystallizer (CR04A). See section VI of this permit, for specific limitations for the LVHC system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

b. Visible emissions from the Unbleached Pulp Mill Equipment shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

c. The throughput of semi-chemical virgin pulp through the pulp washers (Ref. Nos. UPM03, UPM04, and UPM05) shall not exceed 227,760 oven dry tons per year, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110 and Condition 3 of 5/30/03 Permit)

2. **Monitoring for the Unbleached Pulp Mill Equipment**

a. At least one time per calendar week, an observation for the presence of visible emissions from the Unbleached Pulp Mill Equipment shall be made. If visible emissions are observed, the permittee shall:

(1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E)

b. See section VI of this permit, for additional monitoring requirements for the LVHC system.
(9 VAC 5-80-110 and 40 CFR 63 Subpart S)

3. **Recordkeeping for the Unbleached Pulp Mill Equipment**

   a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

      (1) Visual emission log for the Unbleached Pulp Mill Equipment.

      (2) Records of malfunctions of equipment which may cause a violation of any part of this permit.

      (3) Unbleached Pulp Mill equipment operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

      (4) The annual throughput of semi-chemical virgin pulp through the pulp washers (Ref. Nos. UPM03, UPM04, and UPM05) in units of oven dry tons, calculated monthly as the sum of each consecutive 12-month period.
      (Condition 7 of 5/30/03 Permit)

      These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
      (9 VAC 5-50-50 and 9 VAC 5-80-110)

   b. See section VI of this permit, for additional recordkeeping requirements for the LVHC system.
      (9 VAC 5-80-110 and 40 CFR 63 Subpart S)

4. **Testing for the Unbleached Pulp Mill Equipment**

   a. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
      (9 VAC 5-50-30 and 9 VAC 5-80-110)

   b. See section VI of this permit, for additional testing requirements for the LVHC system.
      (9 VAC 5-80-110 and 40 CFR 63 Subpart S)

5. **Reporting for the Unbleached Pulp Mill Equipment**

   a. The permittee shall submit written reports in accordance with General Condition XII.C.
      (9 VAC 5-80-110 F)

   b. See section VI of this permit, for additional reporting requirements for the LVHC system.

   (9 VAC 5-80-110 and 40 CFR 63 Subpart S)

C. Chemical Recovery Equipment Requirements

The Chemical Recovery Equipment includes, but is not limited to, the #1 and #2 Weak Liquor Storage Tanks (Ref. No. CR01), the Heavy Black Liquor Storage Tank (Ref. No. CR03), the Evaporator Vacuum Pump (Ref. No. CR04), the Ultra High Solids Crystallizer (CR04A), the B&W Recovery Boiler (Ref. No. CR05), and the Smelt Dissolving Tank (Ref. No. CR06)

1. Limitations for the Chemical Recovery Equipment

a. The permittee shall control the gaseous organic HAP emissions from the semichemical combustion unit. For the purposes of this permit, the semichemical combustion unit is the B&W Recovery Boiler (Ref. No. CR05). See section VII of this permit, for specific limitations for the semichemical combustion unit.
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

b. Particulate emissions from the B&W Recovery Boiler (Ref. No. CR05) shall be controlled by an electrostatic precipitator. The electrostatic precipitator shall be provided with adequate access for inspection.
(9 VAC 5-80-110)

c. Visible emissions from the Chemical Recovery Equipment, with the exception of the B&W Recovery Boiler (Ref. No. CR05), shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

d. Visible emissions from the B&W Recovery Boiler (Ref. No. CR05) shall not exceed 35% opacity.
(9 VAC 5-40-1710 and 9 VAC 5-80-110)

e. Emissions from the operation of the B&W Recovery Boiler (Ref. No. CR05) shall not exceed the limits specified below:

Particulate Matter	3.00 lbs/equivalent ton of air dried pulp
Total hydrocarbons as carbon	See Condition VII.A.3

(9 VAC 5-80-110, 9 VAC 5-40-1680, and 40 CFR 63.862(c)(2))

f. Emissions from the operation of the Smelt Dissolving Tank (Ref. No. CR06) shall not exceed the limits specified below:

Particulate Matter	0.75 lbs/equivalent ton of air dried pulp

(9 VAC 5-80-110 and 9 VAC 5-40-1680)

g. Emissions from the B&W Recovery Boiler (Ref. No. CR05) shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum. (9 VAC 5-80-110)

h. If the number of excursions exceeds 5 percent of the operating time for the B&W Recovery Boiler (Ref. No. CR05,) the permittee shall develop a Quality Improvement Plan (QIP) according to 40 CFR 64.8. An excursion shall be defined as the dropping of the power (P) to the ESP below the minimum power input range shown in Attachment A. Semi-annual periods are as indicated by reporting requirements in Condition XII.C.3. (9 VAC 5-5-80-110 and 40 CFR 64.8)

2. **Monitoring for the Chemical Recovery Equipment**

a. At least one time per calendar week, an observation for the presence of visible emissions from the Chemical Recovery Equipment, with the exception of the B&W Recovery Boiler (Ref. No. CR05), shall be made. If visible emissions are observed, the permittee shall:

(1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required. (9 VAC 5-80-110 E)

b. At least one time per calendar week, an observation for the presence of visible emissions from the B&W Recovery Boiler stack (Ref. No. CR05) shall be made. If visible emissions are observed the permittee shall:

(1) take timely corrective action such that the boiler resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the boiler stack do not exceed 35 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 35 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 35 percent or less.

The permittee shall maintain a boiler log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the boiler has not been operated during the week, it shall be noted in the boiler log that the boiler was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E)

c. See section VII of this permit, for additional monitoring requirements for the semichemical combustion unit (Ref. No. CR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

d. For the electrostatic precipitator (CRCD05), the permittee shall conduct monitoring as specified in the Compliance Assurance Monitoring (CAM) Plan (Attachment A).
(9 VAC 5-80-110 and 40 CFR 64.6(c))

3. **Recordkeeping for the Chemical Recovery Equipment**

a. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

(1) Visual emission log for the Chemical Recovery Equipment, with the exception of the B&W Recovery Boiler (Ref. No. CR05).

(2) Visual emission log for the B&W Recovery Boiler (Ref. No. CR05).

(3) Records of malfunctions of equipment which may cause a violation of any part of this permit.

(4) Chemical Recovery equipment operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
(9 VAC 5-50-50 and 9 VAC 5-80-110)

b. The permittee shall have available good written operating procedures and a maintenance schedule for the B&W Recovery Boiler (Ref. No. CR05). These

procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110)

c. See section VII of this permit, for additional recordkeeping requirements for the semichemical combustion unit (Ref. No. CR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

d. The permittee shall maintain documentation of monitoring required by the CAM Plan (Attachment A), to include:

(1) Documentation including the date and time of the observations, and the total power (one hour average) to the ESP;

(2) The number of excursions in each semi-annual period;

(3) The corrective action taken in response to each excursion; and

(4) If applicable, any written QIP required by Condition IV.C.1.h and 40 CFR 64.8 and any activities undertaken to implement a QIP

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

4. **Testing for the Chemical Recovery Equipment**

a. The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

b. See section VII of this permit, for additional testing requirements for the semichemical combustion unit (Ref. No. CR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

5. **Reporting for the Chemical Recovery Equipment**

a. The permittee shall submit written reports in accordance with General Condition XII.C.
(9 VAC 5-80-110 F)

b. See section VII of this permit, for additional reporting requirements for the semichemical combustion unit (Ref. No. CR05).
(9 VAC 5-80-110 and 40 CFR 63 Subpart MM)

c. The permittee shall submit written reports containing the following information pertaining to the CAM Plan for the electrostatic precipitator (CRCD05) to the Director, South Central Region no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

(1) Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions and the corrective action taken;

(2) A description of actions taken to implement a QIP during the reporting period as specified 40 CFR 64.8. Upon implementation of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.

The information listed above may be included in the reports required by Condition XII.C.3.
(9 VAC 5-80-110 and 40 CFR 64.9(a)(2))

D. #1 Paper Machine Equipment Requirements

The #1 Paper Machine equipment includes, but is not limited to, the #1 Paper Machine HD Storage Tank (Ref. No. PM01), the #1 Paper Machine Wet End (Ref. No. PM02), and the #1 Paper Machine Dry End (Ref. No. PM03)

1. **Limitations for the #1 Paper Machine Equipment**

a. Visible emissions from the #1 Paper Machine Equipment shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

2. **Monitoring for the #1 Paper Machine Equipment**

a. At least one time per calendar week, an observation for the presence of visible emissions from the #1 Paper Machine Equipment shall be made. If visible emissions are observed, the permittee shall:

(1) take timely corrective action such that the equipment resumes operation with no visible emissions, or,

(2) perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the equipment resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E.)

3. **Recordkeeping for the #1 Paper Machine Equipment**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. Visual emission log for the #1 Paper Machine Equipment.

b. Records of malfunctions of equipment which may cause a violation of any part of this permit.

c. #1 Paper Machine equipment operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
(9 VAC 5-50-50 and 9 VAC 5-80-110)

4. **Testing for the #1 Paper Machine Equipment**

The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

5. **Reporting for the #1 Paper Machine Equipment**
The permittee shall submit written reports in accordance with General Condition XII.C.
(9 VAC 5-80-110 F)

E. #2 Paper Machine Equipment Requirements – (Ref. No. PM04)

1. **Limitations for the #2 Paper Machine Equipment**

a. The production of paper by the #2 Paper Machine (Ref. No. PM04) shall not exceed 390,550 tons per year, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110, and Condition 3 of 5/12/92 Permit, as amended 10/5/94 and 2/22/95)

b. Visible emissions from the #2 Paper Machine Equipment (Ref. No. PM04) shall not exceed 20% opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30% opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

c. Emissions from the operation of the #2 Paper Machine (Ref. No. PM04) shall not exceed the limits specified below:

Volatile Organic Compounds	11.33 lbs/hr	38.0 tons/yr

(9 VAC 5-80-110, and Condition 4 of 5/12/92 Permit, as amended 10/5/94 and 2/22/95)

2. **Monitoring for the #2 Paper Machine Equipment**

At least one time per calendar week, an observation for the presence of visible emissions from the #2 Paper Machine Equipment shall be made. If visible emissions are observed, the permittee shall:

a. take timely corrective action such that the equipment resumes operation with no visible emissions, or,

b. perform a visible emission evaluation (VEE) in accordance with 40 CFR 60, Appendix A, Method 9 to assure visible emissions from the equipment do not exceed 20 percent opacity. The VEE shall be conducted for a minimum of six minutes. If any of the 15-second-interval observations exceed 20 percent, the VEE shall be conducted for a total of 60 minutes. If compliance is not demonstrated by this VEE, timely corrective action shall be taken such that the boiler resumes operation with visible emissions of 20 percent or less.

The permittee shall maintain an equipment log to demonstrate compliance with this condition. The log shall include the date and time of the observations, the observer's name, whether or not there were visible emissions, any VEE recordings and any necessary corrective action. If the equipment has not been operated during the week, it shall be noted in the equipment log that the equipment was not operated and that a visual observation was not required.
(9 VAC 5-80-110 E)

3. **Recordkeeping for the #2 Paper Machine Equipment**

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the South Central Regional Office. These records shall include, but are not limited to:

a. Visual emission log for the #2 Paper Machine Equipment.

b. Records of malfunctions of equipment which may cause a violation of any part of this permit.

c. The yearly production of paper by the #2 Paper Machine, calculated monthly as the sum of each consecutive 12-month period.

d. An annual material balance including the throughput and emissions of VOCs from the #2 Paper Machine. Throughput and emissions shall be calculated monthly as the sum of each consecutive 12-month period.

e. #2 Paper Machine equipment operation information, sufficient to calculate annual emissions for each consecutive 12-month period.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-(5) years.
(9 VAC 5-80-110 and Condition 6 of 5/12/92 Permit, as amended 10/5/94 and 2/22/95)

4. **Testing for the #2 Paper Machine Equipment**

The permitted facility shall be constructed so as to allow for emissions testing upon reasonable notice at any time using appropriate methods. Test ports shall be provided when requested at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

5. **Reporting for the #2 Paper Machine Equipment**

The permittee shall submit written reports in accordance with General Condition XII.C.
(9 VAC 5-80-110 F)

V. MACT Requirements for Startup, Shutdown, and Malfunction Plan

1. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall operate and maintain any affected facility under the provisions 40 CFR 63 Subpart S, 40 CFR 63 Subpart MM, and 40 CFR 63 Subpart DDDDD including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions at least to the levels required by this permit and the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution.

a. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in Condition V.2.

b. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the South Central Regional Office, which may include, but is not limited to, monitoring results, opacity

observations, review of operating and maintenance procedures (including the startup, shutdown, and malfunction plan required in Condition V.2), review of operation and maintenance records, and inspection of the source.

(9 VAC 5-80-110, 40 CFR 63.6(e)(1), 40 CFR 63.6(e)(2))

2. The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the provisions of 40 CFR 63 Subpart S, 40 CFR 63 Subpart MM, and 40 CFR 63 Subpart DDDDD. The plan shall be incorporated by reference into the permittee's Title V permit. (See Condition V.3.) The purpose of the startup, shutdown, and malfunction plan is to:

   a. Ensure that, at all times, the permittee operates and maintains affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by the provisions 40 CFR 63 Subpart S, 40 CFR 63 Subpart MM, and 40 CFR 63 Subpart DDDDD;

   b. Ensure that the permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

   c. Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

   (9 VAC 5-80-110 and 40 CFR 63.6(e)(3))

3. During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under Condition V.2.
   (9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(ii))

4. When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the permittee shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a checklist, or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator shall keep records of these events as specified in 40 CFR 63.10(b), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period

during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual report required in Condition XII.C.3.
(9 VAC 5-80-110 and 40 CFR 63.6 (e)(3)(iii)

5. If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the permittee shall record the actions taken for that event and shall report such actions as specified in 40 CFR 63.6 (e)(3)(iv).
(9 VAC 5-80-110 and40 CFR 63.6 (e)(3)(iv)

6. The South Central Regional Office may require that the permittee make changes to the startup, shutdown, and malfunction plan if the plan:

   a. Does not address a startup, shutdown, or malfunction event that has occurred;

   b. Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by this permit; or

   c. Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

   (9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(vii))

7. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the permittee developed the plan, the permittee shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.
(9 VAC 5-80-110 and 40 CFR 63.6(e)(3)(viii))

VI. MACT I (40 CFR 63 Subpart S) Requirements

A. MACT I Limitations

1. For the purposes of this section of this permit, all terms used herein shall have the meaning given them in 40 CFR 63 Subpart A and 40 CFR 63 Subpart S.
(9 VAC 5-80-110 and 40 CFR 63.441)

2. Unless otherwise required in this permit, the permittee shall comply with the requirements of 40 CFR Part 63 Subpart A, General Provisions, as indicated in 40 CFR Part 63 Subpart S, Table 1, General Provisions Applicability to Subpart S.
(9 VAC 5-80-110 and 40 CFR 63.440(g))

3. The permittee shall control the total HAP emissions from the Low Volume, High Concentration system as specified in Conditions VI.A.4 and VI.A.5. The definition of the Low Volume, High Concentration system (LVHC) is shown in Condition IV.B.1.a.
(9 VAC 5-80-110, 40 CCR 63.441, and 40 CFR 63.443(b))

4. The LVHC equipment systems shall be enclosed and vented into a closed-vent system and routed to a control device that meets the control requirements specified in Condition VI.A.5. The enclosures and closed-vent system shall meet the design requirements specified in Condition VI.A.7.
(9 VAC 5-80-110, and 40 CFR 63.443(c))

5. The control device used to reduce total HAP emissions from the LVHC system shall use one of the following:

   (a) a boiler by introducing the HAP emission stream with the primary fuel or into the flame zone; or

   (b) a boiler with a heat input capacity greater than or equal to 150 million British thermal units per hour by introducing the HAP emission stream with the combustion air.

   (9 VAC 5-80-110, and 40 CFR 63.443(d))

6. Periods of excess emissions reported under Condition XII.C.3 shall not be a violation of Condition VI.A.3 provided that the time of excess emissions (excluding periods of startup, shutdown, or malfunction as specified under section V) divided by the total process operating time in a semi-annual reporting period does not exceed one percent.
(9 VAC 5-80-110 and 40 CFR 63.443(e))

7. Each enclosure and closed-vent system specified in Condition VI.A.4 for capturing and transporting vent streams that contain HAP shall meet the design requirements specified in paragraphs (b) through (d) of 40 CFR 63.450.
(9 VAC 5-80-110 and 40 CFR 63.450(a))

B. MACT I Monitoring and Testing

1. Each enclosure or closed-vent system specified in Condition VI.A.4 shall comply with the following requirements specified in 40 CFR 63.453(k)(1) through 40 CFR 63.453(k)(6):

   a. 30-day visual inspections, specified in 40 CFR 63.453(k)(1), 40 CFR 63.453(k)(2), and 40 CFR 63.453(k)(5),
   b. initial and annual positive pressure section testing, specified in 40 CFR 63.453(k)(3), performed in accordance with the test methods and procedures specified in 40 CFR 63.457 (d),

c. initial and annual negative pressure section testing, specified in 40 CFR 63.453(k)(4), performed in accordance with the test methods and procedures specified 40 CFR 63.457(e), and
d. corrective actions, specified in 40 CFR 63.453(k)(6).

(9 VAC 5-80-110 and 40 CFR 63.453)

2. The permittee shall control emissions from the LVHC system as specified in Condition VI.A.3. Except as provided in Condition VI.A.6, failure to perform procedures required by section VI of this permit shall constitute a violation of the emission standard and be reported as a period of excess emissions.
(9 VAC 5-80-110 and 40 CFR 63.453(o))

C. MACT I Recordkeeping

1. The permittee shall comply with the recordkeeping requirements of 40 CFR 63.10 of 40 CFR 63 Subpart A, as shown in 40 CFR 63 Subpart S, Table 1, General Provisions Applicability to Subpart S, and the requirements specified in Conditions VI.C.2 and VI.C.3 for the monitoring parameters specified in subsection VI.B of this permit.
(9 VAC 5-80-110 and 40 CFR 63.454(a))

2. For each applicable enclosure opening, closed-vent system, and closed collection system specified in Condition VI.A.4, the permittee shall prepare and maintain a site-specific inspection plan including a drawing or schematic of the components of applicable affected equipment and shall record the information listed in 40 CFR 63.454(b)(1) through 40 CFR 63.454(b)(12) for each inspection.
(9 VAC 5-80-110 and 40 CFR 63.454(b))

3. The permittee shall meet the requirements specified in Condition VI.C.1 for any new affected process equipment or pulping process condensate stream that becomes subject to the standards in 40 CFR 63, Subpart S due to a process change or modification.
(9 VAC 5-80-110 and 40 CFR 63.454(d))

D. MACT I Reporting

1. The permittee shall comply with the reporting requirements of 40 CFR Part 63 Subpart A as specified in 40 CFR Part 63 Subpart S, Table 1, General Provisions and Applicability to Subpart S and all of the requirements specified in subsection VI.D of this permit.
(9 VAC 5-80-110 and 40 CFR 63.455(a))

2. The permittee shall meet the requirements specified in Condition VI.D.1 upon startup of any new affected process equipment or pulping process condensate stream that becomes subject to the standards in this 40 CFR 63, Subpart S due to a process change or modification.
(9 VAC 5-80-110 and 40 CFR 63.455(d))

VII. MACT II (40 CFR 63 Subpart MM*)* Requirements

A. MACT II Limitations

1. For the purposes of this section of this permit, all terms used herein shall have the meaning given them in 40 CFR 63 Subpart A and 40 CFR 63 Subpart MM.
(9 VAC 5-80-110 and 40 CFR 63.861)

2. Unless otherwise required in this permit, the permittee shall comply with the requirements of 40 CFR Part 63 Subpart A, General Provisions, as indicated in 40 CFR Part 63 Subpart MM, Table 1, General Provisions Applicability to Subpart MM.
(9 VAC 5-80-110 and 40 CFR 63.860(c))

3. The permittee must ensure that:

   (a) The concentration of gaseous organic HAP, as measured by total hydrocarbons reported as carbon, discharged to the atmosphere from the semichemical combustion unit is less than or equal to 2.97 lb/ton of black liquor solids fired; or

   (b) The gaseous organic HAP emissions from the semichemical combustion unit, as measured by total hydrocarbons reported as carbon, are reduced by at least 90 percent prior to discharge of the gases to the atmosphere.

   Semichemical combustion unit means any equipment used to combust or pyrolyze black liquor at stand-alone semichemical pulp mills for the purpose of chemical recovery. For the purposes of this permit, the semichemical combustion unit is the B&W Recovery Boiler (Ref. No. CR05).

   (9 VAC 5-80-110, 40 CFR 63.862(c)(2), and 40 CFR 63.861)

B. MACT II Monitoring

1. The permittee must monitor the parameters as approved by the Administrator or his/her delegate using the methods and procedures in Condition VII.B.2.
(9 VAC 5-80-110 and 40 CFR 63.864(e)(14))

2. The permittee shall directly monitor emissions in accordance with the "Site Specific Monitoring Plan for the Recovery Combustion Unit, Continuous Emission Monitoring System – Riverville Mill, Revision 0" dated March 8, 2004 and submitted to DEQ on March 10, 2004. In the event of subsequent changes to this plan, the permittee shall submit a copy of the change to DEQ for review, and record the date of the submittal and the nature of the change in a logbook kept permanently onsite. The permittee shall operate in accordance with the most recent plan (based on postmark date of the submittal).
(9 VAC 5-80-110, 40 CFR 63.864(e)(14), and 40 CFR 63.8(f))

C. MACT II Testing

1. On-going compliance provisions.

(a) The permittee is required to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared under section V of this permit when any 3-hour average value exceeds the value in Condition VII.A.3. (9 VAC 5-80-110 and 40 CFR 63.864 (k)(1)(vi))

(b) The permittee is in violation of the standards of Condition VII.A.3 if the following monitoring exceedance occurs:

when six or more 3-hour average values within any 6-month reporting period exceed the value in Condition VII.A.3.

(9 VAC 5-80-110 and 40 CFR 63.864 (k)(2)(vii))

(c) For purposes of determining the number of nonopacity monitoring exceedances, no more than one exceedance will be attributed in any given 24-hour period. (9 VAC 5-80-110 and 40 CFR 63.864 (k)(3))

D. MACT II Recordkeeping

1. Startup, shutdown, and malfunction plan. The permittee must develop and implement a written plan as described in section V of this permit that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and control systems used to comply with the standards. In addition to the information required in section V of this permit, the plan must include the following requirements:

(a) Procedures for responding to any process parameter level that is inconsistent with the level(s) established under Condition VII.C.1, including the following procedures:

(1) Procedures to determine and record the cause of an operating parameter exceedance and the time the exceedance began and ended; and

(2) Corrective actions to be taken in the event of an operating parameter exceedance, including procedures for recording the actions taken to correct the exceedance.

(b) The following schedules:

(1) A maintenance schedule for each control technique that is consistent with, but not limited to, the manufacturer's instructions and recommendations for routine and long-term maintenance; and

(2) An inspection schedule for each continuous monitoring system required under Condition VII.B.1 to ensure, at least once in each 24-hour period, that each continuous monitoring system is properly functioning.

(9 VAC 5-80-110 and 40 CFR 63.866(a))

2. The permittee must maintain records of any occurrence when corrective action is required under Condition VII.C.1(a), and when a violation is noted under Condition VII.C.1(b).
(9 VAC 5-80-110 and 40 CFR 63.866(b))

3. In addition to the general records required by 40 CFR 63.10(b)(2), the permittee must maintain records of the following information

   (a) Records of black liquor solids firing rates in units of tons/day;

   (b) Records of monitoring data required under section VII.B of this permit, including a brief explanation of the cause of any deviation, the time the deviation occurred, the time corrective action was initiated and completed, and the corrective action taken; and

   (c) Records and documentation of supporting calculations for compliance determinations made under VII.C.

   (9 VAC 5-80-110 and 40 CFR 63.866(c))

E. MACT II Reporting

1. Notifications. The permittee must submit the applicable notifications from 40 CFR 63 Subpart A, General Provisions, as specified in 40 CFR 63 Subpart MM, Table 1, General Provisions Applicability to Subpart MM.
(9 VAC 5-80-110 and 40 CFR 63.867(a))

2. Excess emissions report. The permittee must report quarterly if measured parameters meet any of the conditions specified in Condition VII.C.1(a) or Condition VII.C.1(b). This report must contain the information specified in 40 CFR 63.10(c) as well as the number and duration of occurrences when the source met or exceeded the conditions in Condition VII.C.1(a), and the number and duration of occurrences when the source met or exceeded the conditions in Condition VII.C.1(b). Reporting excess emissions below the violation thresholds of Condition VII.C.1 does not constitute a violation of the applicable standard.

   (a) When no exceedances of parameters have occurred, the permittee must submit a semiannual report stating that no excess emissions occurred during the reporting period.

   (b) The permittee for an affected source or process unit subject to the requirements of 40 CFR 63 Subpart MM and 40 CFR 63 Subpart S may combine excess emissions and/or summary reports for the mill.

   (9 VAC 5-80-110 and 40 CFR 63.867(c))

VIII. Boiler MACT (40 CFR 63 Subpart DDDDD*)* Requirements

A. Boiler MACT Limitations

Except where this permit is more restrictive, on or before September 13, 2007 the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall comply with the emission limits, and work practice standards for existing large solid fuel boilers in 40 CFR 63 Subpart DDDDD, the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, and 40 CFR Part 63 Subpart A.
(9 VAC 5-80-110 and 40 CFR 63.7495)

B. Boiler MACT Monitoring

Except where this permit is more restrictive, on or before September 13, 2007 the permittee shall meet all monitoring requirements for existing large solid fuel boilers in 40 CFR 63 Subpart DDDDD applicable to the Foster Wheeler Combination Boiler (Ref. No. BLR05). The monitors shall be maintained and operated in accordance with 40 CFR 63 Subpart DDDDD.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

C. Boiler MACT Testing

The permittee shall conduct tests to demonstrate compliance to the applicable emission limits and work practice standards in Table 1 through 4 of 40 CFR 63 Subpart DDDDD for existing solid fuel boilers. These requirements include the following:

1. an initial performance test or fuel analysis for the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall be performed in accordance to the provisions of 40 CFR 63.7510

2. subsequent performance tests for the Foster Wheeler Combination Boiler (Ref. No. BLR05) shall be performed in accordance to the provisions of 40 CFR 7515

(9 VAC 5-80-110, and 40 CFR 63 Subpart DDDDD)

D. Boiler MACT Recordkeeping

Except where this permit is more restrictive, on or before September 13, 2007 the permittee in accordance with 40 CFR 63 Subpart DDDDD shall record and retain all information necessary to determine that the operation of the Foster Wheeler Combination Boiler (Ref. No. BLR05) is in compliance with the 40 CFR 63 Subpart DDDDD and Subpart A.
(9 VAC 5-80-110 and 40 CFR 63 Subpart DDDDD)

E. Boiler MACT Reporting

1. Except where this permit is more restrictive, the permittee shall meet all applicable reporting requirements for existing solid fuel boilers and submit notifications in accordance with 40 CFR 63 Subpart DDDDD and Subpart A.
(9 VAC 5-80-110 and 40 CFR 63.7545, 40 CFR63.7550, and 40 CFR Subpart A)

2. The permittee shall submit semiannual reports of malfunctions and deviations from applicable emission limits and work practice standards in Tables 1 through 4 of 40 CFR 63 Subpart DDDDD for the existing solid fuel boiler (Foster Wheeler Combination Boiler (Ref. No. BLR05)) per 40 CFR 70.6(a)(3)(iii)(A).
(9 VAC 5-80-110, 40 CFR 63.7550(f), and 40 CFR 63.10)

IX. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation 9 VAC 5-80-720_	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
BLR07	Boiler Water, Steam and Condensate Treatment Storage Tanks. Cooling towers and corrosion control/biocide tanks raw water biocide tanks	A	----	----
BLR08	Boiler Fuel Oil Storage Tanks (#6 and #2) and additives	B	VOC	----
BLR09	Fly Ash Handling	B	Particulate Matter	----
WDY02	Log Debarking	B	Particulate Matter	----
WDY03	Chipping	B	Particulate Matter	----
WDY04	Screening	B	Particulate Matter	----
WDY05	Fines Handling	B	Particulate Matter	----
WDY06	Roundwood Unloading/Loading	B	Particulate Matter	----
WDY07	Pile Erosion (Chips, Bark and Logs)	B	Particulate Matter	----
WDY08	Chip Transport	B	Particulate Matter	----
WDY09	Bark Hogging	B	Particulate Matter	----
WDY10	Fuel Handling	B	Particulate Matter	----
UPM06	#1 and #2 paper machine bulk chemical storage tanks including: Defoamers, dispersants, cleaners, biocides, wet end additives, dry end additives, wetting agents, retention aids, dyes	B	VOC	----
UPM08	Chip Presteamer	B	VOC	----
CR02	Intermediate Liquor Tank	B	Acetaldehyde, Benzene, MIBK, Toluene, M-, O-, P-Xylene, Styrene, Methanol, VOC	----

Emission Unit No.	Emission Unit Description	Citation 9 VAC 5-80-720_	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
CR06	Precipitator Mix Tank	B	Acetaldehyde, Benzene, Styrene, Methanol, VOC	----
CR07	Green Liquor System (Dregs Washer, Green Liquor Clarifier, and Cooking Liquor Mix Tank)	B	Acetaldehyde, , Benzene, Styrene, Methanol, VOC	----
CR08	Chemical Recovery and Pulp Mill Tank Farm (Phosphoric Acid Storage Tanks, Caustic Storage Tanks and Railcars, Soda Ash Storage Tanks and Railcars, HCl Storage Tank, Neutralizing Tank)	B	----	----
PM05	#1 and #2 Paper Machine Hydraulic Drive System Storage Tanks	B	VOC	----
REC01	OCC Facility	B	VOC	----
WWT02	Wastewater Treatment Chemical Storage Tanks (Polymers, Nutrients and Sodium Hydrochlorite)	B	VOC	----
WWT04	Compost System	B	Particulate Matter	----
MIS01	Rolling Stock Fuel Storage Tanks (Diesel, Unleaded Gas)	B	VOC	----
MIS02	Used Oil Storage Tanks	B	VOC	----
MIS03	Landfill	B	Particulate Matter	----
MIS04	Solvent Based Parts Washer	B	VOC	----

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

X. Facility Wide Conditions

New source standard for visible emissions

Unless otherwise specified in this permit, on or after the date on which the performance test required to be conducted by 9 VAC 5-50-30 is completed, no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility (constructed, modified or relocated after March 17, 1972, or reconstructed on or after December 10, 1976) any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.

(9 VAC 5-50-80 and 9 VAC 5-80-110)

XI. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None Identified		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by (i) the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XII. General Conditions

A. Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.
(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

   c. The company or entity that performed the analyses.

   d. The analytical techniques or methods used.

   e. The results of such analyses.

   f. The operating conditions existing at the time of sampling or measurement.

   (9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
   (9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

   a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that "no deviations from permit requirements occurred during this semi-annual reporting period."

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than March 1 each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. The identification of each term or condition of the permit that is the basis of the certification.

3. The compliance status.

4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.

6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall notify the South Central Regional Office, within four daytime business hours after discovery of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the discovery, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition XII.C.3 of this permit.
(9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours after the malfunction is discovered, notify the Director, South Central Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within 14 days of discovery provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, South Central Region.

1. The emission units that have continuous monitors subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not subject to the 14 day written notification.

2. The emission units subject to the reporting and the procedure requirements of 9 VAC 5-40-50 C and the procedures of 9 VAC 5-50-50 C are listed below:

   Foster Wheeler Combination Boiler (Ref. No. BLR05)

3. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board semiannaually. All semiannual reports shall be postmarked by the 30th day following the end of each calendar half and shall include the following information:

a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

All malfunctions of emission units not subject to 9 VAC 5-40-50 C and 9 VAC 5-50-50 C require written reports within 14 days of the discovery of the malfunction.
(9 VAC 5-20-180 C, and 9 VAC 5-50-50)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1605, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios. (9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege. (9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.
   (9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
   (9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by **April 15** of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and,

5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of malfunction, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.

4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A-F)

Y. Asbestos Requirements

The permittee shall comply with the requirements of National Emissions Standards for Hazardous Air Pollutants (40 CFR 61) Subpart M, National Emission Standards for Asbestos as it applies to the following: Standards for Demolition and Renovation (40 CFR 61.145), Standards for Insulating Materials (40 CFR 61.148), and Standards for Waste Disposal (40 CFR 61.150).
(9 VAC 5-60-70 and 9 VAC 5-80-110 A.1)

Z. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

AA. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

BB. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

CC. Violation of Ambient Air Quality Standard

The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.
(9 VAC 5-80-110, and Condition 12 of 5/30/03 Permit)

Attachment A: Compliance Assurance Monitoring Plan

Emission Unit	**Recovery Boiler CR05**
Description	B&W recovery boiler which burns heavy black liquor and #6 fuel oil
Control Device	B&W dry bottom, three field, electrostatic precipitator (CRCD05)
Applicable Requirement	9 VAC 5-40-260
Regulated Pollutant	PM
Emission Limit	3.0 lbs/tons of air dried pulp.
I. CAM Indicator	ESP secondary voltage and current are measured for each field and the total power input to the ESP is calculated.
Measurement Approach	Measure secondary voltage (V) and current (I) applied to ESP for each field. Calculate the total power (P) input to the ESP by summing the products of the secondary voltage and current for each field, P = V1x I1 + V2 x I2 + V3 x I3.
Monitoring Frequency	Continuously measure secondary voltage and current and calculate power input every 15 minutes.
Justification	See below.
II. Indicator Range	Minimum power input will be established via stack testing.
III. Performance Criteria **Data Representativeness**	Total power applied to an ESP is a standard accepted means to predict ESP performance. See CAM Technical Guidance Document A.25 dated September 2000 for further discussion on ESP PM control.
QA/QC Practices and Criteria	The mill's distributive controls system and PI data historian system will be maintained in accordance to the manufacturer's recommendations. Also, the voltage and current meters will read zero when the ESP is not operating.
Data Collection Procedures	The ESP secondary voltage and current will be monitored by the mill's Foxboro distributive controls system and the data will be stored for a minimum of 5 years in the PI data historian system.
Averaging period	The one hour average will be calculated for the total power input to the ESP.

CAM Plan Justification

The justification for using the proposed CAM approach is based upon the principle that adequate power must be applied to the ESP in order to develop the electrically charged field that drives the collection of PM as it passes through the various fields. A stack test will be conducted using Method 5 to measure PM exiting the ESP while current, in amps, voltage, in volts, and production throughput are simultaneously measured. A minimum power applied to the ESP will then be established, above which the predicted PM emissions will be considered to be in compliance. An excursion will occur if the power applied to the ESP drops below the established minimum for more than one hour. Under this condition, immediate corrective action will be necessary in order to return the ESP to the established level. Also, this corrective action will be documented using a check sheet similar to those used for the existing start up, shutdown, malfunction plan.

CAM Plan Test Plan

In order to establish the minimum power input to the ESP below which corrective action will be required, a study will be conducted. This study will be concluded within 180 days of the issuance of the renewed Title V permit. This study will include a series of stack tests using Method 5 for particulate matter measurement and the collection of operating data. The stack test protocol will be provided to the DEQ for their review prior to conducting the stack test. A minimum of six Method 5 runs, each lasting an hour, will be conducted by an independent testing company. Concurrent operating data including such as secondary voltage, secondary current, fuel flow, black liquor flow, pulp production and steam production will be recorded. Data analysis will include developing the relationship between emissions in lb/hr and total power input to the ESP. From this relationship a minimum power input value will be selected that based on the operating and stack test data will indicate proper ESP operation and compliance with the applicable standard of 3.0lb PM/air dried tons pulp.